What is claimed is:

1. A method of management and control of voice calls in an integrated voice and data service network, comprising

a first step of discriminating whether or not a packet input to a first gateway in said integrated network is a voice call packet,

a second step of deciding, when the packet is discriminated as a voice call packet at said first step, whether or not the related voice call packet can be carried over a transmission path based on both an available band of the transmission path to an opposing second gateway and a required band of the related voice call packet, and

a third step of transferring the related voice call packet to said second gateway only when it is decided that it can be carried.

2. A method of management and control of voice calls as set forth in claim 1, wherein said first or second step is executed by referring to predetermined parameters held in said first gateway.

3. A method of management and control of voice calls as set forth in claim 2, wherein

said parameters include at least one of an IP source address, TCP/IP, RTP, UDP port numbers, and a TOS value of the packet input to said gateway, and said first step is executed based on the related parameters.

4. A method of management and control of voice calls as set forth in claim 2, wherein said parameter is communication throughput information of the related voice call packet, and said second step is executed based on the parameter.

5. A method of management and control of voice calls as set forth in claim 2, wherein said parameter when executing said first step, is input into and held at said first gateway in advance.

6. A method of management and control of voice

calls as set forth in claim 2, wherein said parameter, when executing said first step, is determined by analyzing an information element of the voice call packet when said voice call packet passes said first gateway and this is stored and held in said first gateway.

7. A method of management and control of voice calls as set forth in claim 6, wherein said information element is a packet length of the voice call packet, where if it is detected that the packet has a predetermined packet length, the above information element is added to said stored parameters.

8. A method of management and control of voice calls as set forth in claim 1, wherein said second step comprises a step of first deciding whether or not signaling information can be carried over said transmission path based on the required band of the voice call packet, discriminated by said first step, carrying the signaling information and a step, when it is decided it can be carried, of subsequently deciding whether or not voice information can be carried over said transmission path based on the required band of the voice call packets carrying the voice information.

9. A method of management and control of voice calls as set forth in claim 1, wherein the decision at said second step is one of whether to permit passage of said voice call packet to said transmission path, to restrict passage, or to wait for permission for passage.

10. A method of management and control of voice calls as set forth in claim 9, further comprising a step of reserving communication wherein, when the decision at said second step is to wait for permission for passage to said transmission path, the communication is reserved and the voice call packet is transmitted simultaneously with the issuance of the permission for passage.

11. A gateway in an integrated voice and data service network, comprising
a discriminating means for discriminating

whether or not a packet input to said gateway is a voice call packet and

a deciding means for deciding, when said discriminating means discriminates the packet as a voice call packet, whether or not the voice call packet can be carried over a transmission path based on both a communication band provided in the transmission path to opposing another gateway and the required band of the related voice call packet.

12. A gateway as set forth in claim 11, wherein provision is made of a memory means for holding predetermined parameters referred to for the discrimination by said discriminating means or the decision by said deciding means.

13. A gateway as set forth in claim 12, wherein said discriminating means includes an analyzing unit for finding said parameter for discrimination by analyzing an information element of a voice call packet when a voice call packet passes through the gateway and storing and holding the same in said memory means.

14. A gateway as set forth in claim 12, further provided with an external interface unit for inputting said parameters used when executing said discrimination in advance for holding in said memory means.